



Docket No. FAZIX/1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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TECH CENTER 1600/2900

Examiner : Cheyne D. Ly
Group Art Unit : 1631
Applicant : Jonathan M. Friedman
Application No.: 09/910,592 Confirmation No.: 1403
Filed : July 20, 2001
For : METHOD FOR AB INITIO DETERMINATION OF
MACROMOLECULAR CRYSTALLOGRAPHIC PHASES
AT MODERATE RESOLUTION BY A SYMMETRY-
ENFORCED ORTHOGONAL MULTICENTER
SPHERICAL HARMONIC-SPHERICAL BESSEL
EXPANSION

New York, New York
November 12, 2003

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), applicant makes of record the following documents, which are listed on Form PTO-1449, enclosed herewith in duplicate.

U.S. PATENT

6,020,121 issued February 1, 2000 Bao et al.

OTHER DOCUMENTS

Adams, P.D., et al., "Extending the limits of molecular replacement through combined simulated annealing and maximum-likelihood refinement," *Acta Crystallogr. D: Biol. Crystallogr.* 55(1): 181-190 (1999).

11/19/2003 MMEKONEN 00000069 09910592

02 FC:1806

180.00 DP

EV133110718US

Andrews, K.W. "A table of maxima and minima of the Bessel functions $J_n(Z)$ for $n=0$ to $n=30$," *Acta Crystallographica* 37: 765-766 (1981).

Blake, J.F., "Chemoinformatics - predicting the physicochemical properties of 'drug like' molecules," *Curr. Opin. Biotechnol.* 11(1): 104-107 (2000).

Chen, J., et al., "Increasing the Thermostability of Staphylococcal Nuclease: Implications for the Origin of Protein Thermostability," *J. Mol. Biol.* 303: 125-130 (2000).

Clark, D.E., et al., "Pharmacophoric pattern matching in files of three-dimensional chemical structures: implementation of flexible searching," *J. Mol. Graphics* 8(5): 146-156 (1993).

Fitzgerald, P.M.D., "MERLOT, an integrated package of computer programs for the determination of crystal structures by molecular replacement," *J. Appl. Crystallography* 21: 273-278 (1988).

Ho, C.M.W., et al., "FOUNDATION: a program to retrieve all possible structures containing a user-defined minimum number of matching query elements from three-dimensional databases," *J. Comput. Aided Mol. Des.* 7(1): 3-22 (1993).

Norinder, U., et al., "Theoretical calculation and prediction of intestinal absorption of drugs in humans using MolSurf parametrization and PLS statistics," *Eur. J. Pharm. Sci.* 8(1): 49-56 (1999).

Paciorek, W.A., et al., "Generalized Bessel functions in incommensurate structure analysis," *Acta Crystallographica* 50: 194-203 (1994).

Su, Z., et al., "Closed-form expressions for Fourier-Bessel transform of Slater-type functions," *J. Appl. Cryst.* 23: 71-73 (1990).


Van Drie, J.H., "An inequality for 3D database searching and its use in evaluating the treatment of conformational flexibility," *J. Comput. Aided Mol. Des.* 10(6): 623-630 (1996).

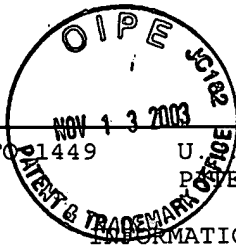
Willet, P., "Searching for pharmacophoric patterns in databases of three-dimensional chemical structures," *J. Mol. Recognit.* 8(5): 290-303 (1995).

REMARKS

Applicant requests that the cited documents be (1) fully considered by the Examiner during the course of examination of this application and (2) printed on any patent issuing from this application. Applicant also requests that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

Respectfully submitted,


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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

ATTY. DOCKET NO.
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,020,121	02/01/00	Bao et al.	435	4	9/29/95

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
✓	¹ Adams, P.D., et al., "Extending the limits of molecular replacement through combined simulated annealing and maximum-likelihood refinement," <i>Acta Crystallogr. D: Biol. Crystallogr.</i> 55(1): 181-190 (1999).
✓	² Andrews, K.W. "A table of maxima and minima of the Bessel functions J _n (Z) for n=0 to n=30," <i>Acta Crystallographica</i> 37: 765-766 (1981).
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✓	⁴ Chen, J., et al., "Increasing the Thermostability of Staphylococcal Nuclease: Implications for the Origin of Protein Thermostability," <i>J. Mol. Biol.</i> 303: 125-130 (2000).
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✓	⁶ Fitzgerald, P.M.D., "MERLOT, an integrated package of computer programs for the determination of crystal structures by molecular replacement," <i>J. Appl. Crystallography</i> 21: 273-278 (1988).
✓	⁷ Ho, C.M.W., et al., "FOUNDATION: a program to retrieve all possible structures containing a user-defined minimum number of matching query elements from three-dimensional databases," <i>J. Comput. Aided Mol. Des.</i> 7(1): 3-22 (1993).
✓	⁸ Norinder, U., et al., "Theoretical calculation and prediction of intestinal absorption of drugs in humans using MolSurf parametrization and PLS statistics," <i>Eur. J. Pharm. Sci.</i> 8(1): 49-56 (1999).

EXAMINER

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	⁹ Paciorek, W.A., et al., "Generalized Bessel functions in incommensurate structure analysis," <i>Acta Crystallographica</i> 50: 194-203 (1994).
	¹⁰ Su, Z., et al., "Closed-form expressions for Fourier-Bessel transform of Slater-type functions," <i>J. Appl. Cryst.</i> 23: 71-73 (1990).
	¹¹ Van Drie, J.H., "An inequality for 3D database searching and its use in evaluating the treatment of conformational flexibility," <i>J. Comput. Aided Mol. Des.</i> 10(6): 623-630 (1996).
	¹² Willet, P., "Searching for pharmacophoric patterns in databases of three-dimensional chemical structures," <i>J. Mol. Recognit.</i> 8(5): 290-303 (1995).

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